

# EXHIBIT C

# EXHIBIT D-1

## Apple Infringement Chart

### Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1a. A system comprising:

Apple AirPods Pro headphones are a system.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1b. headphones comprising a pair of first and second wireless earphones to be worn simultaneously by a user, wherein the first and second earphones are separate such that when the headphones are worn by the user, the first and second earphones are not physically connected, wherein each of the first and second earphones comprises:

Apple AirPods Pro headphones include first and second wireless earphones to be worn simultaneously by a user, wherein the first and second earphones are separate such that when the headphones are worn by the user, the first and second earphones are not physically connected, wherein each of the first and second earphones comprises the below.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1c. a body portion that comprises:

Apple AirPods Pro headphones include body portion that further comprises the below.



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Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1d. a wireless communication circuit for receiving and transmitting wireless signals;

Apple AirPods Pro headphones include a wireless communication circuit for receiving and transmitting wireless signals.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1e. a processor circuit in communication with the wireless communication circuit; and

Apple AirPods Pro headphones include a processor circuit in communication with the wireless communication circuit.

**Tech-packed yet compact, AirPods Pro are built around our System in Package design — featuring the H1 chip that powers everything from sound to Siri.**



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1f. an ear canal portion that is inserted into an ear of the user when worn by the user; and

Apple AirPods Pro headphones include an ear canal portion that is inserted into an ear of the user when worn by the user.



<https://www.apple.com/airpods-pro/>



Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1g. at least one acoustic transducer connected to the processor circuit; and

Apple AirPods Pro headphones include at least one acoustic transducer connected to the processor circuit.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1h. an elongated portion that extends away from the body portion such that the elongated portion extends downwardly when the ear canal portion is inserted in the ear of the user;

Apple AirPods Pro headphones include an elongated portion that extends away from the body portion such that the elongated portion extends downwardly when the ear canal portion is inserted in the ear of the user.

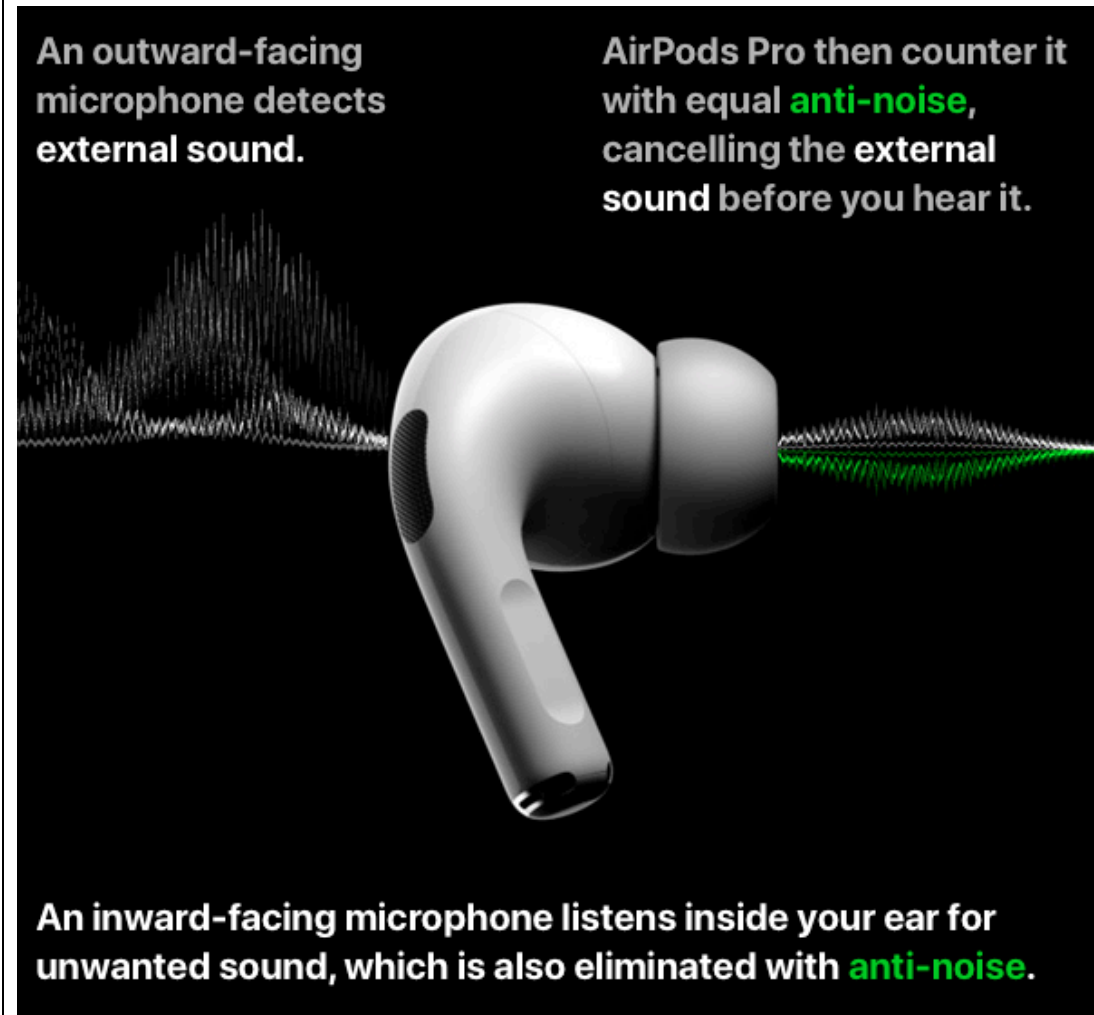


<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1i. a microphone connected to the processor circuit and for picking up utterances of a user of the headphones;

Apple AirPods Pro headphones include a microphone connected to the processor circuit and for picking up utterances of a user of the headphones.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1j. an antenna connected to the wireless communication circuit; and

Apple AirPods Pro headphones include an antenna connected to the wireless communication circuit.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

1k. a rechargeable power source;  
and

Apple AirPods Pro headphones include a rechargeable power source.

More than  
**24 hrs**  
of listening time with  
multiple additional  
charges in the case<sup>2</sup>

Up to  
**4.5 hrs**  
of listening time  
on one charge<sup>3</sup>

Around  
**1 hr**  
of listening time on  
only 5 minutes  
of charging<sup>4</sup>

<https://www.apple.com/airpods-pro/>

Infringement of Claim 1 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

11. a mobile, digital audio player that stores digital audio content and that comprises a wireless transceiver for transmitting digital audio content to the headphones via Bluetooth wireless communication links, such that each earphone receives and plays audio content received wirelessly via the Bluetooth wireless communication links from the mobile, digital audio player.

Apple AirPods Pro headphones include a mobile, digital audio player that stores digital audio content and that comprises a wireless transceiver for transmitting digital audio content to the headphones via Bluetooth wireless communication links, such that each earphone receives and plays audio content received wirelessly via the Bluetooth wireless communication links from the mobile, digital audio player.



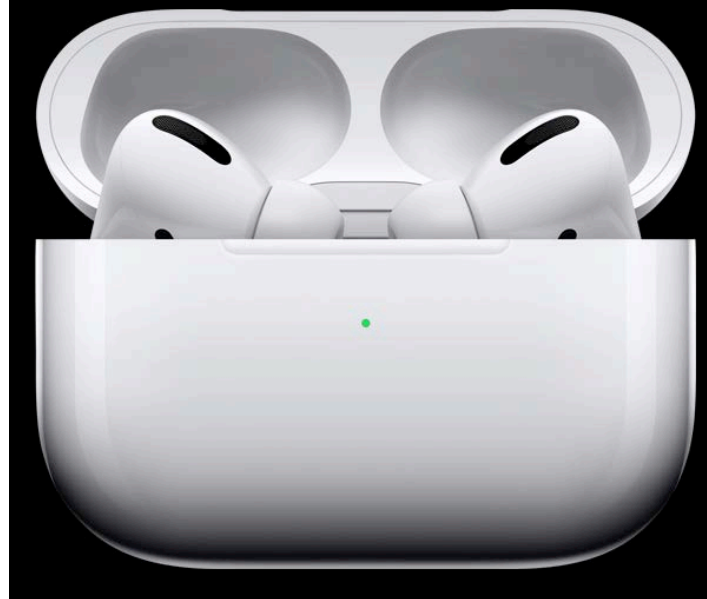
<https://www.apple.com/airpods-pro/>

Infringement of Claim 2 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

2. The system of claim 1, further comprising a docking station for holding at least the first wireless earphone, wherein the docking station comprises a power cable for connecting to an external device for charging the at least the first wireless earphone when the docking station is connected to the external device via the power cable.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, further comprising a docking station for holding at least the first wireless earphone, wherein the docking station comprises a power cable for connecting to an external device for charging the at least the first wireless earphone when the docking station is connected to the external device via the power cable.

**The Wireless Charging Case delivers more than 24 hours of battery life to keep you and your AirPods Pro on the go. And it's compatible with Qi-certified chargers.**



<https://www.apple.com/airpods-pro/>

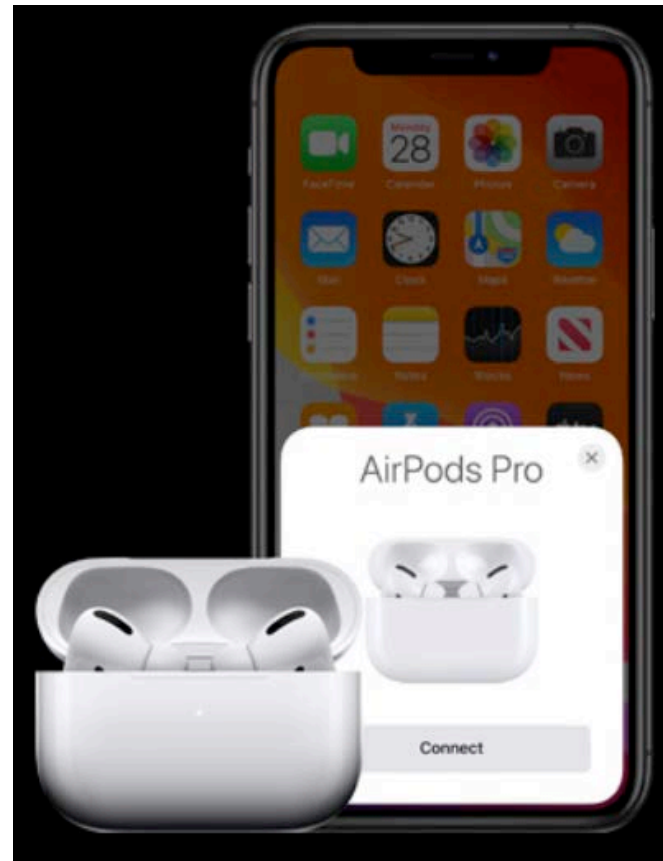
Infringement of Claim 3 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

3a. The system of claim 1, wherein:

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system.

3b. in a first operational mode, the pair of first and second earphones play audio content stored on the mobile, digital audio player and transmitted to the first and second earphones from the mobile, digital audio player via the Bluetooth wireless communication links; and

In a first operational mode, the pair of first and second earphones or Apple AirPods Pro play audio content stored on the mobile, digital audio player and transmitted to the first and second earphones from the mobile, digital audio player via the Bluetooth wireless communication links.



<https://www.apple.com/airpods-pro/>



3c. in a second operational mode, the pair of first and second earphones play audio content streamed from a remote network server.

In a second operational mode, the pair of first and second earphones of Apple AirPods Pro play audio content streamed from a remote network server.

## Switch between noise-control modes

You can switch between noise-control modes right from your AirPods Pro, or you can use your iPhone, iPad, Apple Watch, or Mac.

When using iOS, iPadOS, watchOS, or macOS to switch between noise-control modes, you'll see Active Noise Cancellation available as Noise Cancellation.

<https://support.apple.com/en-us/HT210643>

## Automatic switching

**Seamlessly move between devices without manually switching your AirPods.<sup>10</sup> If you finish a phone call on your iPhone and pick up your iPad to watch a movie, AirPods automatically switch over.**

<https://www.apple.com/ios/ios-14/>

Infringement of Claim 4 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

4. The system of claim 1, wherein the processor circuit of the first earphone is for, upon activation of a user control of the headphones, initiating transmission of a request to a remote network server that is remote from the mobile, digital audio player and in communication with the mobile, digital audio player via a data communication network.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the processor circuit of the first earphone is for, upon activation of a user control of the headphones, initiating transmission of a request to a remote network server that is remote from the mobile, digital audio player and in communication with the mobile, digital audio player via a data communication network.

**Tech-packed yet compact,  
AirPods Pro are built around our  
System in Package design —  
featuring the H1 chip that powers  
everything from sound to Siri.**



**A simple “Hey Siri”  
summons your favorite  
personal assistant.  
Control your music,  
calls, volume,  
directions, and more —  
without lifting a finger.**

<https://www.apple.com/airpods-pro/>

Infringement of Claim 5 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

5. The system of claim 4, wherein the processor circuit of the first earphone is further for receiving a response to the request.


For at least the reasons set forth above in Claim 4, Apple AirPods Pro includes a system, wherein the processor circuit of the first earphone is further for receiving a response to the request.

**Tech-packed yet compact,  
AirPods Pro are built around our  
System in Package design —  
featuring the H1 chip that powers  
everything from sound to Siri.**



**A simple "Hey Siri"  
summons your favorite  
personal assistant.  
Control your music,  
calls, volume,  
directions, and more —  
without lifting a finger.**

<https://www.apple.com/airpods-pro/>

Infringement of Claim 6 of U.S. Patent No. 10,491,982 by Apple AirPods Pro	
6a. The headphones of claim 5, wherein:	For at least the reasons set forth above in Claim 5, Apple AirPods Pro includes a system.
6b. the mobile digital audio player is a first digital audio source;	<p>The system of Apple AirPods Pro headphones includes the mobile digital audio player as a first digital audio source.</p>  <p><a href="https://www.apple.com/airpods-pro/">https://www.apple.com/airpods-pro/</a></p>

6c. the system further comprises a second digital audio player that is different from the first digital audio player; and

The system of Apple AirPods Pro headphones includes a second digital audio player that is different from the first digital audio player.

## Switch between noise-control modes

You can switch between noise-control modes right from your AirPods Pro, or you can use your iPhone, iPad, Apple Watch, or Mac.

When using iOS, iPadOS, watchOS, or macOS to switch between noise-control modes, you'll see Active Noise Cancellation available as Noise Cancellation.

<https://support.apple.com/en-us/HT210643>

## Automatic switching

**Seamlessly move between devices without manually switching your AirPods.<sup>10</sup> If you finish a phone call on your iPhone and pick up your iPad to watch a movie, AirPods automatically switch over.**

<https://www.apple.com/ios/ios-14/>

6d. the headphones transition to play digital audio content received wirelessly from the second digital audio source via a second wireless communication link based on, at least in part, a signal strength for the second wireless communication link.

Apple AirPods Pro headphones transition to play digital audio content received wirelessly from the second digital audio source via a second wireless communication link based on, at least in part, a signal strength for the second wireless communication link.

## Switch between noise-control modes

You can switch between noise-control modes right from your AirPods Pro, or you can use your iPhone, iPad, Apple Watch, or Mac.

When using iOS, iPadOS, watchOS, or macOS to switch between noise-control modes, you'll see Active Noise Cancellation available as Noise Cancellation.

<https://support.apple.com/en-us/HT210643>

## Automatic switching

**Seamlessly move between devices without manually switching your AirPods.<sup>10</sup> If you finish a phone call on your iPhone and pick up your iPad to watch a movie, AirPods automatically switch over.**

<https://www.apple.com/ios/ios-14/>

Infringement of Claim 7 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

7. The headphones of claim 6, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

For at least the reasons set forth above in Claim 6, Apple AirPods Pro includes a system, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

There's no standard way to upgrade the firmware of the AirPods, with the new firmware installed over-the-air while the AirPods are connected to an iOS device. Putting the AirPods in the case, connecting the AirPods to a power source, and then pairing the AirPods to an iPhone or an iPad should force the update after a short period of time.

You can check your AirPods or AirPods Pro firmware by following these steps:

- Connect your AirPods or AirPods Pro to your iOS device.
- Open the Settings app.
- Tap General.
- Tap About.
- Tap AirPods.
- Look at the number next to "Firmware Version."

It has been several months since Apple released new firmware updates for the AirPods and the AirPods Pro.

<https://www.macrumors.com/2020/09/14/apple-updates-airpods-firmware-3a283/>

Infringement of Claim 8 of U.S. Patent No. 10,491,982 by Apple AirPods

8. The headphones of claim 6, wherein each of the first and second earphones comprises a buffer for caching the audio content received by the earphone prior to being played by the at least one acoustic transducer of the earphone.

For at least the reasons set forth above in Claim 6, Apple AirPods includes a system, wherein each of the first and second earphones comprises a buffer for caching the audio content received by the earphone prior to being played by the at least one acoustic transducer of the earphone.



<https://www.apple.com/airpods-pro/>



Infringement of Claim 9 of U.S. Patent No. 10,491,982 by Apple AirPods

9. The system of claim 8, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

For at least the reasons set forth above in Claim 8, Apple AirPods includes a system, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

There's no standard way to upgrade the firmware of the AirPods, with the new firmware installed over-the-air while the AirPods are connected to an iOS device. Putting the AirPods in the case, connecting the AirPods to a power source, and then pairing the AirPods to an iPhone or an iPad should force the update after a short period of time.

You can check your AirPods or AirPods Pro firmware by following these steps:

- Connect your AirPods or AirPods Pro to your iOS device.
- Open the Settings app.
- Tap General.
- Tap About.
- Tap AirPods.
- Look at the number next to "Firmware Version."

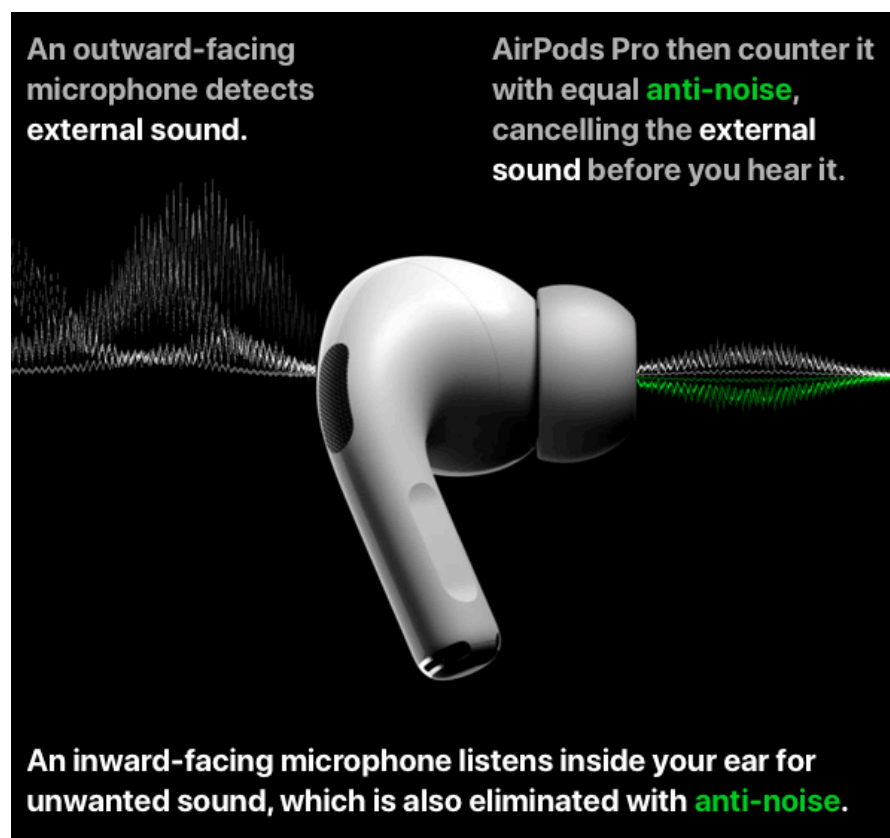
It has been several months since Apple released new firmware updates for the AirPods and the AirPods Pro.

<https://www.macrumors.com/2020/09/14/apple-updates-airpods-firmware-3a283/>

**Infringement of Claim 10 of U.S. Patent No. 10,491,982 by Apple AirPods**

<p>10a. The headphones of claim 9, wherein the processor circuit of each of the first and second earphones comprises:</p>	<p>For at least the reasons set forth above in Claim 9, Apple AirPods includes a system, wherein the processor circuit of each of the first and second earphones comprises the below.</p>
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<p>10b. a digital signal processor that provides a sound quality enhancement for the audio content played by the at least one acoustic transducers of the earphone; and</p>	<p>Apple AirPods headphones include a digital signal processor that provides a sound quality enhancement for the audio content played by the at least one acoustic transducers of the earphone.</p>
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<https://www.apple.com/airpods-pro/>

10c. a baseband processor circuit that is in communication with the wireless communication circuit of the earphone.

Apple AirPods headphones include a baseband processor circuit that is in communication with the wireless communication circuit of the earphone.

**Tech-packed yet compact,  
AirPods Pro are built around our  
System in Package design —  
featuring the H1 chip that powers  
everything from sound to Siri.**



<https://www.apple.com/airpods-pro/>

Infringement of Claim 11 of U.S. Patent No. 10,491,982 by Apple AirPods Pro	
11a. The system of claim 1, wherein:	For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system.
11b. the mobile digital audio player is a first digital audio source;	<p>For at least the reasons set forth above in Claim 6b, the system of Apple AirPods Pro headphones includes the mobile digital audio player as a first digital audio source.</p>  <p><a href="https://www.apple.com/airpods-pro/">https://www.apple.com/airpods-pro/</a></p>

11c. the system further comprises a second digital audio player that is different from the first digital audio player; and

For at least the reasons set forth above in Claim 6c, the system of Apple AirPods Pro headphones includes a second digital audio player that is different from the first digital audio player.

## Switch between noise-control modes

You can switch between noise-control modes right from your AirPods Pro, or you can use your iPhone, iPad, Apple Watch, or Mac.

When using iOS, iPadOS, watchOS, or macOS to switch between noise-control modes, you'll see Active Noise Cancellation available as Noise Cancellation.

<https://support.apple.com/en-us/HT210643>

## Automatic switching

Seamlessly move between devices without manually switching your AirPods.<sup>10</sup> If you finish a phone call on your iPhone and pick up your iPad to watch a movie, AirPods automatically switch over.

<https://www.apple.com/ios/ios-14/>

11d. the headphones transition to play digital audio content received wirelessly from the second digital audio source via a second wireless communication link based on, at least in part, a signal strength for the second wireless communication link.

For at least the reasons set forth above in Claim 6d, Apple AirPods Pro headphones transition to play digital audio content received wirelessly from the second digital audio source via a second wireless communication link based on, at least in part, a signal strength for the second wireless communication link.

## Switch between noise-control modes

You can switch between noise-control modes right from your AirPods Pro, or you can use your iPhone, iPad, Apple Watch, or Mac.

When using iOS, iPadOS, watchOS, or macOS to switch between noise-control modes, you'll see Active Noise Cancellation available as Noise Cancellation.

<https://support.apple.com/en-us/HT210643>

## Automatic switching

**Seamlessly move between devices without manually switching your AirPods.<sup>10</sup> If you finish a phone call on your iPhone and pick up your iPad to watch a movie, AirPods automatically switch over.**

<https://www.apple.com/ios/ios-14/>

Infringement of Claim 12 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

12. The headphones of claim 11, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

For at least the reasons set forth above in Claim 11, Apple AirPods Pro includes a system, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

There's no standard way to upgrade the firmware of the AirPods, with the new firmware installed over-the-air while the AirPods are connected to an iOS device. Putting the AirPods in the case, connecting the AirPods to a power source, and then pairing the AirPods to an iPhone or an iPad should force the update after a short period of time.

You can check your AirPods or AirPods Pro firmware by following these steps:

- Connect your AirPods or AirPods Pro to your iOS device.
- Open the Settings app.
- Tap General.
- Tap About.
- Tap AirPods.
- Look at the number next to "Firmware Version."

It has been several months since Apple released new firmware updates for the AirPods and the AirPods Pro.

<https://www.macrumors.com/2020/09/14/apple-updates-airpods-firmware-3a283/>

Infringement of Claim 13 of U.S. Patent No. 10,491,982 by Apple AirPods

13. The headphones of claim 12, wherein each of the first and second earphones comprises a buffer for caching the audio content received by the earphone prior to being played by the at least one acoustic transducer of the earphone.

For at least the reasons set forth above in Claim 12, Apple AirPods includes a system, wherein each of the first and second earphones comprises a buffer for caching the audio content received by the earphone prior to being played by the at least one acoustic transducer of the earphone.



<https://www.apple.com/airpods-pro/>



Infringement of Claim 14 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

14. The system of claim 1, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the processor circuits of the headphones are configured to receive firmware upgrades pushed from a remote network server.


There's no standard way to upgrade the firmware of the AirPods, with the new firmware installed over-the-air while the AirPods are connected to an iOS device. Putting the AirPods in the case, connecting the AirPods to a power source, and then pairing the AirPods to an iPhone or an iPad should force the update after a short period of time.

You can check your AirPods or AirPods Pro firmware by following these steps:

- Connect your AirPods or AirPods Pro to your iOS device.
- Open the Settings app.
- Tap General.
- Tap About.
- Tap AirPods.
- Look at the number next to "Firmware Version."

It has been several months since Apple released new firmware updates for the AirPods and the AirPods Pro.

<https://www.macrumors.com/2020/09/14/apple-updates-airpods-firmware-3a283/>

Infringement of Claim 15 of U.S. Patent No. 10,491,982 by Apple AirPods Pro	
15a. The system of claim 1, wherein the processor circuit of the first earphone is configured to:	For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the processor circuit of the first earphone is configured to complete the below.
15b. process audible utterances by the user picked by the microphone in response to activation of the microphone by the user; and	<p>Apple AirPods Pro headphones process audible utterances by the user picked by the microphone in response to activation of the microphone by the user.</p> <p><b>Tech-packed yet compact, AirPods Pro are built around our System in Package design — featuring the H1 chip that powers everything from sound to Siri.</b></p>  <p><b>A simple “Hey Siri” summons your favorite personal assistant. Control your music, calls, volume, directions, and more — without lifting a finger.</b></p> <p><a href="https://www.apple.com/airpods-pro/">https://www.apple.com/airpods-pro/</a></p>

15c. transmit a communication based on the audible utterances via the Bluetooth wireless communication links.

Apple AirPods Pro headphones transmit a communication based on the audible utterances via the Bluetooth wireless communication links.

**Tech-packed yet compact, AirPods Pro are built around our System in Package design — featuring the H1 chip that powers everything from sound to Siri.**



**A simple “Hey Siri” summons your favorite personal assistant. Control your music, calls, volume, directions, and more — without lifting a finger.**

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Infringement of Claim 16 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

16. The system of claim 1, wherein the rechargeable power source comprises a wirelessly chargeable circuit component.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the rechargeable power source comprises a wirelessly chargeable circuit component.

**The Wireless Charging Case delivers more than 24 hours of battery life to keep you and your AirPods Pro on the go. And it's compatible with Qi-certified chargers.**



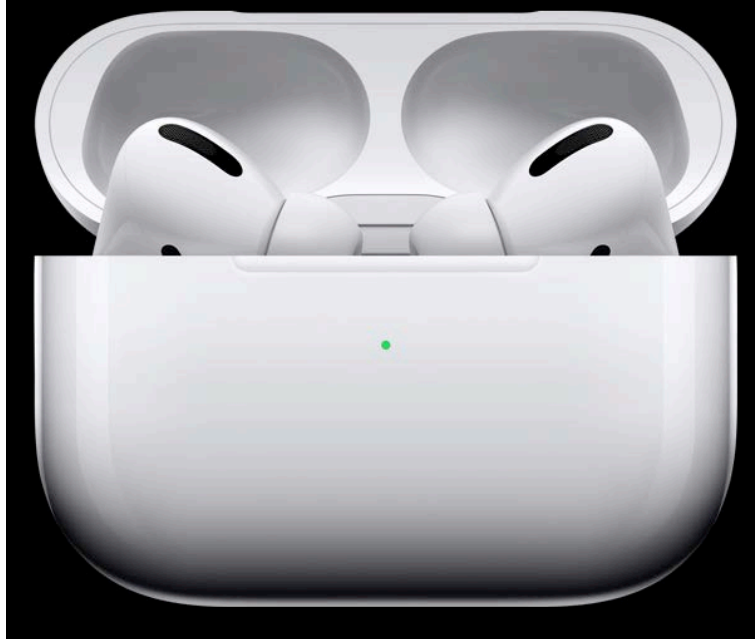
<https://www.apple.com/airpods-pro/>

Infringement of Claim 17 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

17. The system of claim 1, wherein the rechargeable power source comprises a passive, wireless rechargeable power source.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the rechargeable power source comprises a passive, wireless rechargeable power source.

**The Wireless Charging Case delivers more than 24 hours of battery life to keep you and your AirPods Pro on the go. And it's compatible with Qi-certified chargers.**

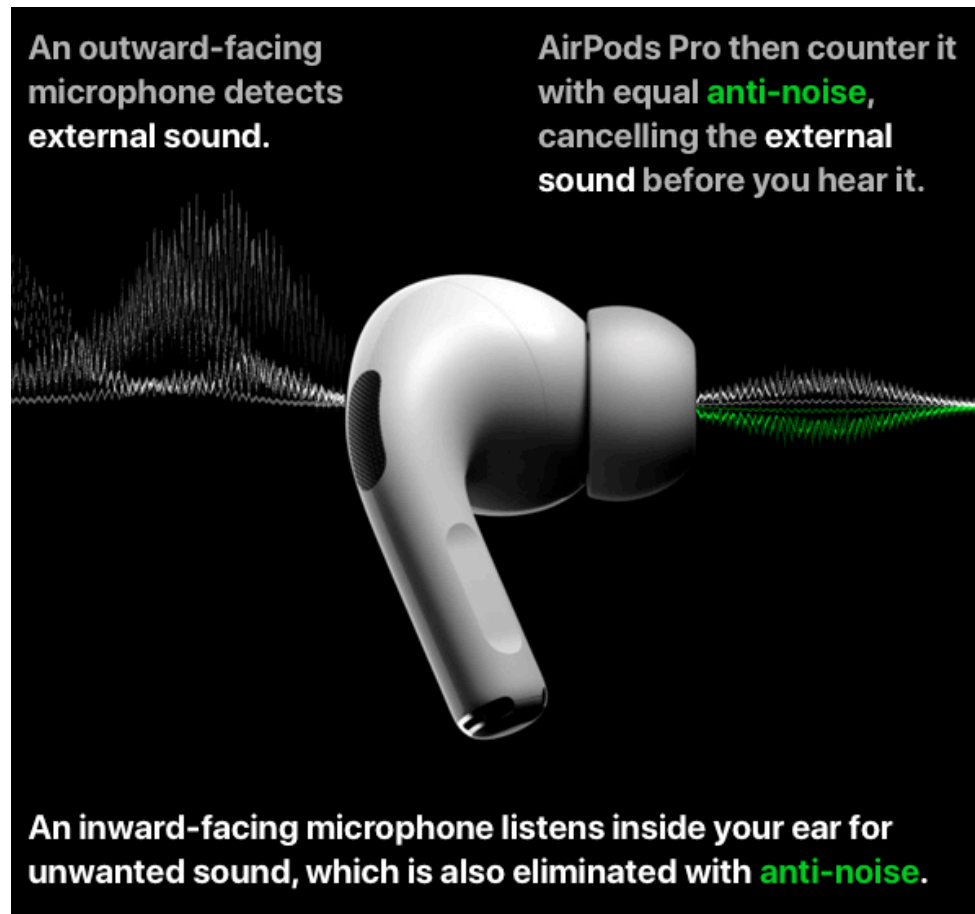


<https://www.apple.com/airpods-pro/>

Infringement of Claim 19 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

19. The headphones of claim 1, wherein the processor circuit of each of the first and second earphones comprises a digital signal processor that provides a sound quality enhancement for the audio content played by the at least one acoustic transducers of the earphone.

For at least the reasons set forth above in Claim 1, Apple AirPods Pro includes a system, wherein the processor circuit of each of the first and second earphones comprises a digital signal processor that provides a sound quality enhancement for the audio content played by the at least one acoustic transducers of the earphone.



<https://www.apple.com/airpods-pro/>

Infringement of Claim 20 of U.S. Patent No. 10,491,982 by Apple AirPods Pro

20. The headphones of claim 19, wherein the processor circuit of each of the first and second earphones further comprises a baseband processor circuit that is in communication with the wireless communication circuit of the earphone.

For at least the reasons set forth above in Claim 19, Apple AirPods Pro includes a system, wherein the processor circuit of each of the first and second earphones further comprises a baseband processor circuit that is in communication with the wireless communication circuit of the earphone.

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AirPods Pro are built around our  
System in Package design —  
featuring the H1 chip that powers  
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